

**U.S. Environmental Protection Agency
Office of Research and Development**

**BOARD OF SCIENTIFIC COUNSELORS
ECOLOGICAL RESEARCH PROGRAM SUBCOMMITTEE**

**Conference Call Summary
April 1, 2005
5:00 p.m. – 7:00 p.m. EDT**

Welcome

Dr. Michael Clegg welcomed participants to the third conference call for the U.S. Environmental Protection Agency's (EPA) Board of Scientific Counselors (BOSC) Ecological Research Subcommittee. During this call, Subcommittee members discussed final changes to the Ecological Research Program Draft Report.

Conference call participants included:

- Dr. Clegg (Chair), University of California at Irvine.
- Mr. Russel Frydenborg, Florida Department of Environmental Protection.
- Dr. John Giesy, Michigan State University.
- Dr. Richard Lowrance, Agricultural Research Service.
- Dr. Sue Thompson, Pennsylvania Biodiversity Partnership.
- Dr. Gene Turner, Louisiana State University.
- Dr. Jianguo Wu, Arizona State University.

Other conference call participants included Dr. Kevin Summers (Office of Research and Development [ORD]) and Mr. Greg Susanke (ORD).

Mr. Susanke, the Designated Federal Officer, reminded members that this call was a public meeting and subject to Federal Advisory Committee Act requirements. Minutes are being taken by The Scientific Consulting Group, Inc., and will be made available to the public. No requests for public comments have been made for this meeting.

Review Ecological Research Program Draft Report

Dr. Clegg described the structure of the report, first commenting that a Table of Contents would be created. The report begins with an Executive Summary, followed by the Introduction, which restates both the charges to the Subcommittee and the Long Term Goals (LTGs) to provide background for the review. The report is organized into the six major topic areas: relevance,

quality, performance, leadership, collaboration, and resources. Relevant charge questions under each of these topic areas are addressed for each LTG. Subsequent sections of the report discuss integration and future directions (which contains major observations that cut across all three goals), and findings and recommendations. Dr. Clegg commented that the goal of this conference call was to discuss the report in its current form and spend some time discussing the section on findings and recommendations. He hoped to send the final draft report to the BOSC Executive Committee on Tuesday, April 5, 2005. He added that the report would be more useful to Ecological Research Program staff if they received it prior to their Program Assessment Rating Tool (PART) review deadline. Before the Subcommittee began reviewing the report, Mr. Frydenborg commented that he thought the whole review process, including conference calls, information provided by the Ecological Research Program, and the posters and presentations at the face-to-face meeting, worked very well.

Dr. Clegg began the review of the report and asked the Subcommittee members for comments. In response to a question from Dr. Thompson, Mr. Susanke clarified that the title page of the report should state that the report is submitted to the BOSC Executive Committee. Subcommittee members agreed that the Executive Summary and Introduction were acceptable and did not ask for any changes. In the section concerning program relevance, a question was raised concerning whether a sentence should read that EPA or the Ecological Research Program had developed a probability-based design and sampling framework; Dr. Giesy clarified that this should read that the Ecological Research Program developed the design.

Dr. Clegg asked for clarification of a statement in the section on relevance of LTG2 that states that LTGs 2 and 3 are “proposed.” Dr. Clegg thought these goals were operational even though there are no multiyear plans for them. Dr. Summers answered that the goals are not officially operational until June, when multiyear plans will be in place, but noted that the word “proposed” in connection with LTGs 2 and 3 could be deleted.

Subcommittee members decided that Dr. Wu’s figure, which graphically portrays the impact of each goal at local, state, or national levels, should be referenced in the section under Scientific and Competitive Quality titled “Specifics for Program Elements.” Dr. Thompson added that in this section and others she deleted “academic” in reference to “academic scientists” because EPA scientists collaborate with scientists other than those in academia, such as federal and state scientists. Dr. Thompson asked for clarification of a sentence in this section that read, “Thus, it is not possible to assess the current or planned activities relative to a specific plan with a well-developed programmatic structure.” Dr. Giesy answered that he and Dr. Lowrance wrote this section, and because the idea is implicit in the paragraph, the sentence itself could be deleted.

Dr. Thompson asked whether Subcommittee members wanted to change the statement, “We support minimum external peer review standards for internal projects,” by removing the word “minimum.” Dr. Giesy acknowledged that he was not satisfied with the wording, but was trying to state that the Subcommittee did not want to mandate how the Ecological Research Program performs peer review while at the same time recommending that external peer review was needed. Dr. Lowrance added that the Program does employ some peer review, but it is not used evenly across the Program.

In the section on performance under discussion of LTG2, Dr. Lowrance commented that he thought a sentence indicating that states, tribes, and local governments also must be held

accountable for implementation of tools developed by the Ecological Research Program was beyond the scope of this program review. Mr. Frydenborg disagreed, saying that within any communication paradigm, both parties must try to communicate. If states and tribes are not receptive to using tools developed by the Ecological Research Program, it is difficult to hold the Program responsible for use of its tools. Dr. Lowrance agreed, but reiterated that it was not within the charge of the review to address the responsibilities of states and tribes. Dr. Thompson suggested changing the sentence to read that states and tribes should be encouraged to use tools offered by the Program. Mr. Frydenborg agreed to this change, but maintained that states and tribes should be held accountable. As an employee of Florida's Environmental Protection Agency, Mr. Frydenborg said that he should be held accountable for using the newest technologies and tools available, and if he does not, this should reflect poorly on his performance. In general, if EPA has a useful tool but stakeholders at the state and local levels do not pursue use of this tool, this is not entirely EPA's fault. Responsibility also lies with the stakeholders to seek out and implement these tools. Dr. Clegg agreed with Mr. Frydenborg, but also confirmed Dr. Lowrance's position that this was beyond the scope of this review. Mr. Frydenborg suggested that the sentence be changed to, "States, tribes, and local governments should be encouraged to use state-of-the-science tools."

Subcommittee members discussed the placement of a table developed by Dr. Turner that compiled statistics on peer-reviewed publications by the Ecological Research Program. Dr. Turner described the table as a way of comparing the three goals on several different levels. The table has the total number of journal articles and reports, the percent of these that are published, the average impact factor, and the citations per journal. Dr. Turner thought that he should provide some text to clarify the table. In response to a question from Dr. Clegg concerning conclusions to be drawn from this table, Dr. Turner answered that the report states that the quality of the science in the Program is good, but within LTG1, scientists work mainly with state agencies and are not charged with developing scientific articles, leading to a discrepancy with the other goals, which could be reflected in this table. Dr. Clegg suggested that this table could be placed in the section on program quality or in the section on integration, because the table would support an overall statement that the scientific quality of the Program is high. Dr. Wu suggested that the table could be moved to the section on collaborations, in section B, Specifics for Program Elements. He commented that placing the table elsewhere in the report might conflict with some of the conclusions made by the Subcommittee. Subcommittee members agreed that the scientific quality of the Program is high-to-excellent across the board, but the table might appear to contradict this. Dr. Turner replied that any contradictions should be mitigated by language to the effect that scientists working under LTG1 worked mainly with state agencies, which tend not to publish; this would account for LTG1's low citation rate. Dr. Wu responded that the table shows that most of the papers and publications are not peer-reviewed journals. His view is that the three LTGs have different foci, and therefore different types of outputs should be expected. For example, if scientists are charged with working with stakeholders and local communities, publications in peer-reviewed journals should be less expected. Most of the outputs of such work might be in the form of reports and brochures. He suggested that perhaps this table should not be used to evaluate all of the LTGs.

Because of these problems, Subcommittee members agreed that the table should be left out of the report. The table might reflect negatively on goals that have a primary focus on working with states rather than generating research papers. Subcommittee members agreed that the information was helpful, but might not support statements made unless more text was added to

clarify the table. Dr. Wu added that overemphasizing the impact factor of the articles might send a negative signal to components of the Ecological Research Program involved in outreach and environmental restoration activities, activities that do not generate journal articles.

The Subcommittee discussed the collaboration section, particularly a paragraph recommending that funds received by stakeholders be distributed on a competitive basis. Dr. Giesy commented that sometimes funds received by the states are re-distributed, but not competitively. He suggested that competition be brought into this process. Dr. Lowrance requested clarification, asking if this meant that the money the Ecological Research Program gave to stakeholders non-competitively, such as through cooperative agreements, should be distributed by the stakeholders in a competitive manner. Dr. Clegg responded that competition among projects for funding would ensure that the most meritorious projects are selected. Dr. Summers clarified that most money received by the states is spent by state personnel. If the state chooses to spend money outside its own personnel, this must be done competitively. Subcommittee members agreed to delete this paragraph.

Turning to question 8 within the collaboration section, the Subcommittee discussed a paragraph stating that the Ecological Research Program's accomplishments are critical building blocks to achieving EPA's overall goals and objectives in protecting and restoring the nation's ecosystems. This section also states that EPA's accomplishments cannot by themselves achieve all of EPA's stated goals and objectives because of the size and complexity of the problems. Subcommittee members agreed that minor editorial changes were needed, but thought it was good to remind readers that the Program cannot do everything, particularly with a smaller budget. Dr. Thompson asked for clarification on another sentence in this section, which reads in part, "They have enhanced the science infrastructure directly and indirectly." She was not sure what "they" referred to. Dr. Wu thought that this referred to the accomplishments of the Program. Dr. Clegg disagreed, because he thought that "infrastructure" referred to buildings and equipment, rather than research methodologies and technologies as seemed to be implied here. He suggested that this sentence be deleted.

Subcommittee members discussed the two text boxes in the report, one describing mercury contamination in the Everglades and the other on biological assessment and Total Maximum Daily Loads (TMDLs). Dr. Thompson asked whether Appendix 3, which discusses the Willamette River Project, also should be made into a text box. Subcommittee members agreed that this should be moved into the body of the report as a text box.

In the section discussing resources, Subcommittee members wanted to emphasize that the Ecological Research Program has done an excellent job of leveraging resources, but not of documenting the magnitude of this leveraging. In the section, Findings and Recommendations, Dr. Clegg informed Subcommittee members that he took the material given to him by the workgroups and combined it to form this section. Dr. Lowrance commented that he thought international collaborations with the scientific community should apply to all of the LTGs. He added that there appeared to be language specifically endorsing LTG3; he expressed concern that this would give the impression that the Subcommittee did not endorse the other LTGs or that LTG3 was being singled out for some reason. He thought that instead the Subcommittee could say, "In development of the new multiyear plan, the Subcommittee endorses the LTGs as they are structured." Dr. Thompson agreed that singling out LTG3 makes it appear that the Subcommittee does not endorse the others. Dr. Lowrance suggested that rather than indicating

that the Subcommittee endorses the LTGs, they could state that LTG3 fits with LTGs 1 and 2 and is appropriate and relevant to the Program. He added that he thought LTG2 also was a new goal. He reiterated that the Subcommittee should treat all three goals consistently. Dr. Giesy suggested that the key point should be that LTG3 is a newly re-organized program element.

The last section of the report discusses the Ecological Research Program's response to budget reductions. Dr. Turner commented that he was not willing to state that it was reasonable that the Program cut extramural funding in response to budget cuts. Dr. Clegg responded that he intended to say that this response is reasonable if the budget problems persist for only 1 or 2 years, but not as a long-term or permanent solution. He added that firing staff when it is known that the budget will rise again within the next few years might cause greater damage than temporary cuts to extramural programs. Re-hiring staff can be difficult, and the loss of institutional memory must be considered. Dr. Turner answered that he understood this point of view, but nonetheless did not feel comfortable endorsing this strategy. He agreed that changing the sentence to state that taking reductions from extramural programs was understandable, rather than justified, was acceptable. Dr. Clegg added that the report states that abandoning extramural programs is not a cost-effective strategy in the long term, because leveraging of resources is lost, as is the ability to promote innovative thinking and similar activities.

Dr. Clegg asked if Subcommittee members were prepared to submit the document after changes discussed during this call were made and figures, text boxes, and a table of contents were added. The figures would include graphs showing the program budget for the last 2 years and anticipated budgets for future years. Mr. Susanke asked for changes to be made on the first page of the Executive Summary. In the first sentence, a statement about EPA research programs should be changed to ORD research programs. In the last sentence, "review panel" should be changed to "BOSC Ecological Research Subcommittee."

Drs. Clegg and Thompson clarified the figures to be used in the report. They agreed to use graphs supplied by Dr. Summers. One graph describes total Ecological Research Program resources in dollars for the years 2001 to 2006. The other graph shows total program full time equivalents for the same years. The figure developed by Dr. Wu at the face-to-face meeting describing the levels of impact of each LTG also will be included. The report also will contain three text boxes describing mercury contamination in the Everglades, biological assessment and TMDLs, and the Willamette River Project. Dr. Thompson also agreed to develop a table of contents using the major headings of the report. Dr. Clegg asked whether Subcommittee members agreed that the revised document was ready to submit to the BOSC Executive Committee; all members agreed they were satisfied with the report.

Dr. Thompson agreed to make the final revisions and send the report to Dr. Clegg by e-mail on Monday, April 4, 2005. Dr. Clegg then will submit the report to the BOSC Executive Committee on Tuesday, April 5, 2005.

Next Steps

Dr. Clegg asked Subcommittee members to submit their timesheets to Mr. Susanke. Mr. Susanke clarified that the timesheets should not include time spent on this conference call but should include time spent working on the report since the end of the face-to-face meeting. Drs.

Clegg and Thompson finalized plans for finishing the report and agreed to be in contact over the weekend if necessary. Dr. Clegg asked if he should send the report to Dr. Jim Johnson. Mr. Susanke answered that he should, and that he also should send the report to the other Subcommittee members and to himself.

Action Items

- Dr. Thompson will make final revisions to the report, including creating and formatting text boxes and developing a table of contents.
- Dr. Thompson will send the final report to Dr. Clegg by e-mail on Monday, April 4, 2005.
- Dr. Clegg will send the report to the BOSC Executive Committee and to the other Subcommittee members and Mr. Susanke on Tuesday, April 5, 2005.

List of Participants

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BOSC Ecological Research Subcommittee Teleconference
April 1, 2005
5:00 p.m. – 7:00 p.m. EST

Agenda

Welcome

Dr. Michael Clegg
Chair, Ecological Subcommittee

Review Ecological Research Program Draft Report

Subcommittee

- Present and discuss comments
- Discuss issues

Public Comments

Finalize Draft Report

Subcommittee

- Finalize report/concur on changes to be made, or discuss procedure for finalizing report

Next Steps

Greg Susanke, DFO

- Submit Report to BOSC Executive Committee
- Submit Time Sheet (for work after March 9)